



⑪ Publication number : **0 676 763 A2**

⑫ **EUROPEAN PATENT APPLICATION**

⑲ Application number : **95110413.2**

⑤ Int. Cl.⁶ : **G11B 33/04**

⑳ Date of filing : **04.07.95**

③ Priority : **15.07.94 IT MI941490**
19.01.95 IT MI950025 U

④ Date of publication of application :
11.10.95 Bulletin 95/41

⑧ Designated Contracting States :
AT BE CH DE DK ES FR GB GR IE IT LI NL SE

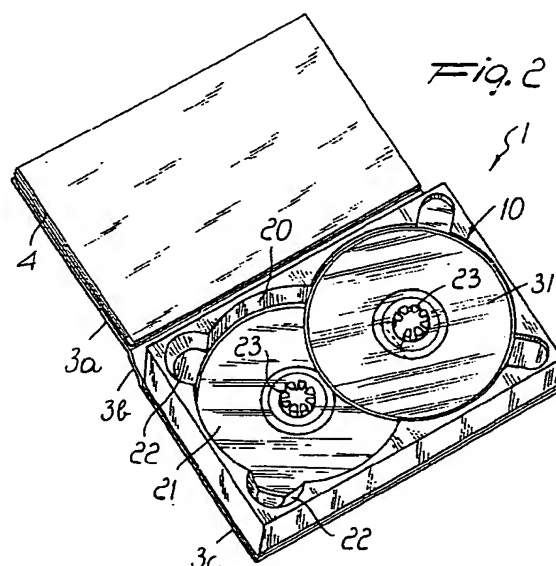
⑦ Applicant : **GRAFICA POZZOLI S.p.A.**
Via G. di Vittorio, 11
I-20065 Inzago (Prov. of Milan) (IT)

⑦ Inventor : **Pozzoli, Aldo**
Via Marchesi, 20
I-20065 Inzago, Milan (IT)

⑦ Representative : **Modiano, Guido, Dr.-Ing.**
Modiano & Associati S.r.l.
Via Meravigli, 16
I-20123 Milano (IT)

⑤ Container for a plurality of discs, particularly compact discs.

⑦ The present invention relates to a container for a plurality of discs, particularly compact discs, which comprises a tray-like body having, on its bottom, a first flat surface and a second flat surface arranged side by side and at different levels. The container comprises a first swing-out frame, pivoted to the tray and accommodatable at the first flat surface, and a second swing-out frame, pivoted to the tray and partially accommodatable on the second flat surface so that the remaining part overlaps, and is spaced from, the first frame accommodated on the first flat surface. Each frame supports two discs on opposite faces.



EP 0 676 763 A2

The present invention relates to a container for a plurality of discs, particularly compact discs.

It is known that containers for a plurality of compact discs are generally constituted by a tray-like body that forms the side-by-side recesses or seats for accommodating the compact discs.

This arrangement causes the dimensions of the container to have a 2-to-1 ratio, so that said container assumes external dimensions that in addition to being scarcely effective from an aesthetic point of view are often awkward, since they do not allow to easily place the container in the areas where it is to be held.

The aim of the present invention is to solve the problem described above, by providing a container for a plurality of discs that allows to accommodate two or more discs and allows to remove them individually and to reduce the external dimensions, thus making it easier and simpler to position said container in the areas where it is to be held.

Within the scope of this aim, a particular object of the invention is to provide a container in which the external dimension ratio is such as to provide, in addition to a pleasant aesthetic effect, an easier use of the container.

Another object of the invention is to provide a container that, by virtue of its particular constructive features, gives the greatest assurances of reliability and safety in use.

Still another object of the invention is to provide a container that is obtainable starting from commonly commercially available elements and materials and is furthermore competitive from a merely economic point of view.

This aim, these objects, and others which will become apparent hereinafter are achieved by a container for a plurality of discs, particularly compact discs, according to the present invention, which comprises a tray-like body defining the seats for accommodating at least two discs, characterized in that said tray-like body defines a first region for accommodating a first disc and at least a second region for accommodating at least a second disc, said second region being located at a higher level than said first region, said at least second disc being arranged so that it partially overlaps said first disc and is spaced therefrom.

Further characteristics and advantages will become apparent from the description of two preferred but not exclusive embodiments of a container for a plurality of compact discs, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

figure 1 is a schematic perspective view, in closed position, of a container for a plurality of discs according to the invention;

figure 2 is a schematic perspective view of a container for two discs, shown in open position;

figure 3 is a sectional view of the container for two discs;

figure 4 is a schematic perspective view of a container for three discs, shown in open position;

figure 5 is a schematic perspective view of a container for three discs, with the second and third discs hinged out;

figure 6 is a sectional view of the container for three discs;

figure 7 is a sectional view of the container for three discs, with the second and third discs hinged out;

figure 8 is a schematic perspective view of the container for four compact discs, in closed position;

figure 9 is a perspective view of the container of figure 8, with the front flap open;

figure 10 is a sectional view, taken along a longitudinal median plane;

figure 11 is a perspective view of the container with one frame in swung-out position;

figure 12 is a perspective view of the container with both trays in swung-out position.

With reference to figures 1 to 7, the container for a plurality of discs, particularly for compact discs, according to the invention, is generally designated by the reference numeral 1 and comprises an outer case 2 provided with a front flap 3a which is connected, by means of a spine 3b, to a rear flap 3c.

Advantageously, sheets 4, joined in a booklet-like fashion to apply the necessary indications, can be applied onto the inner face of the front flap 3a, whereas a tray-like body, generally designated by the reference numeral 10, is provided on the inner face of the rear flap 3c.

The tray-like body 10 is connected to the flap 3c by interposing adhesive material or with other conventional methods that are accordingly not examined in detail herein; the tray 10 can furthermore be formed monolithically with the flap 3c.

A feature of the invention is constituted by the fact, as shown in figures 2 and 3, that the tray-like body 10 defines a first region 20 for accommodating a first compact disc 21; said region has, in a per se known manner, peripheral recesses 22 that allow to remove the disc 21, which is retained, in a per se known manner, by a coupling element 23 that acts axially.

A further feature of the invention is constituted by the fact that there is a second region 30 for accommodating a second compact disc 31, said region being arranged at a higher level than the first region 20.

The second compact disc 31 is furthermore arranged so as to partially overlap the first compact disc 21 and remain spaced therefrom, so that the user can, as shown schematically in dashed lines in figure 3, remove either disc without difficulty.

The partial overlapping of the discs, while keeping them mutually spaced, allows to significantly reduce the overall size of the container and most of all

to reduce its dimension ratio.

By the same constructive concept it is also possible to provide a container, shown in figures 4 to 7, in which it is possible to simultaneously accommodate three discs.

In this case, a swing-out frame 40 is provided at the second region 30 and is pivoted at one edge of the tray, said frame supporting a second compact disc, again designated by the reference numeral 31, on one face, and a third compact disc, designated by the reference numeral 41, on the other face.

As clearly shown in the figures, in order to remove either one of the compact discs it is sufficient to overturn the frame 40.

For the sake of completeness in description, it should also be added that the conventional recesses allowing to insert a finger to remove the compact disc are provided both at the second region 30 and at the peripheral regions of the frame 40.

With reference to figures 8 to 12, the container for a plurality of discs, particularly compact discs, according to the invention, which is generally designated by the reference numeral 101, comprises an outer case 102 having a front flap 103 connected to a rear flap 105 by means of a spine 104.

Preferably but not necessarily, sheets 106, bound in a booklet form for applying the necessary indications, can be provided on the inside face of the front flap 103, and a tray-like body, generally designated by the reference numeral 110, is provided on the inside face of the rear flap 105.

The tray-like body 110 is connected to the flap 105 by interposing adhesive material or with other conventional methods that allow to stably connect the tray-like body 110 to the cover 102.

An important feature of the invention is constituted by the fact that the tray-like body defines, at the bottom, a first flat surface 111 and a second flat surface 112 arranged side by side at different levels.

The container comprises a first swing-out frame, designated by the reference numeral 120, which is pivoted at a longitudinal end of the tray-like body 110 and supports, on opposite faces, two compact discs 121 and 122, which are retained in a per se known manner by the conventional central coupling 123.

Recesses 124 are formed on the opposite faces of the first frame and are located at the peripheral region of the discs 121 and 122, forming a grip element.

The first frame 120 can be arranged at the flat surface 111 and has such a thickness as to not rise above the level of the second flat surface 112.

A second frame 130 is pivoted at the opposite longitudinal end of the tray-like body 110 and supports a third compact disc and a fourth compact disc, designated by the reference numerals 131 and 132, which are also retained by a conventional central coupling 133.

In this case, too, the frame 130 has recesses,

designated by the reference numeral 134, which are located at the peripheral region of the discs 131 and 132 to facilitate their removal.

The second frame 130 can be partially arranged on the flat surface 112, and its remaining part protrudes with respect to the flat surface 112 and arranges itself so as to overlap the first frame and be spaced therefrom.

For the sake of completeness in description, it should be added that semicircular recesses, designated by the reference numeral 140, are formed on the second flat surface 112 at the peripheral region of the first flat surface 111, and allow to grip the first frame 120 to swing it out.

With the above described arrangement, it is thus possible to accommodate four compact discs in a very compact container and to individually remove each compact disc.

From the above description it is thus evident that the invention achieves the intended aim and objects, and in particular the fact is stressed that with extremely simple constructive solutions, such as the provision of two regions at different levels for accommodating the first and second compact discs, which are partially superimposed and spaced, it is possible to reduce the overall size of the container without thereby compromising in any way the possibility of easily removing the compact discs.

The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the inventive concept.

All the details may furthermore be replaced with other technically equivalent elements.

In practice, the materials employed, as well as the contingent shapes and dimensions, may be any according to the requirements.

Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. Container for a plurality of discs, particularly compact discs, which comprises a tray-like body (10,110) defining seats for accommodating at least two discs, characterized in that said tray-like body (10,110) defines a first region (20) for accommodating a first disc (21) and at least a second region (30) for accommodating at least a second disc (31) located at a higher level than said first region (20), said at least second disc (31) being arranged so that it partially overlaps said first disc (21) and is spaced therefrom.

2. Container according to claim 1, characterized in that it comprises a case (2,102) that forms a front flap (3a,103) joined to a rear flap (3c,105) by means of a spine (3b,104), said tray-like body (10,110) being associated to an inner face of said rear flap (3c,105). 5

3. Container according to the preceding claims, characterized in that it comprises, on an inner face of said front flap (3a,103), a plurality of sheets (4,106) which are mutually joined so as to form a booklet. 10

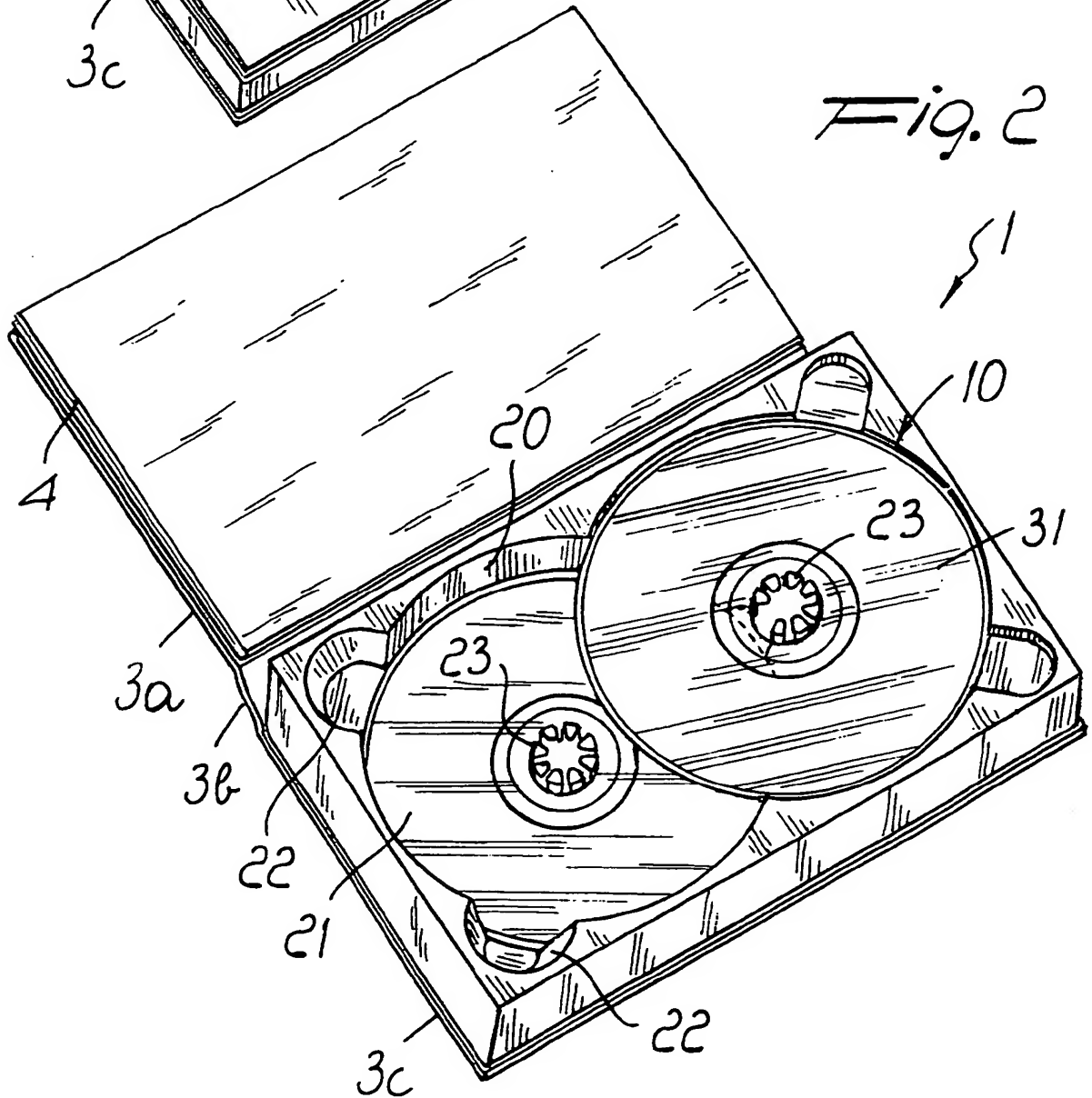
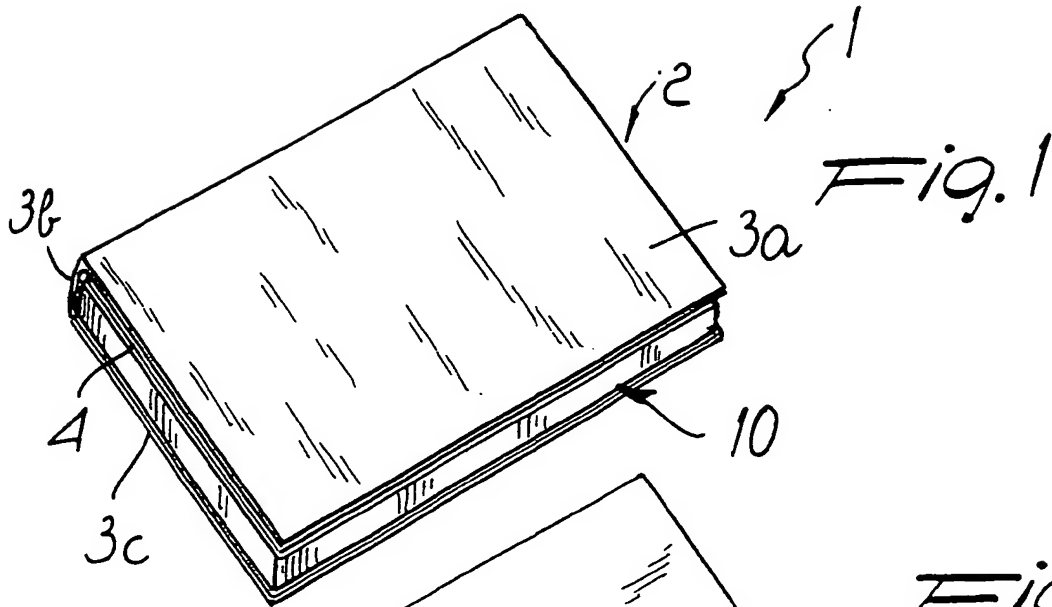
4. Container according to one or more of the preceding claims, characterized in that it comprises, at said first accommodation region (20) and at said second accommodation region (30), recesses (22) that are arranged peripherally to allow access for removing the disc. 15
20

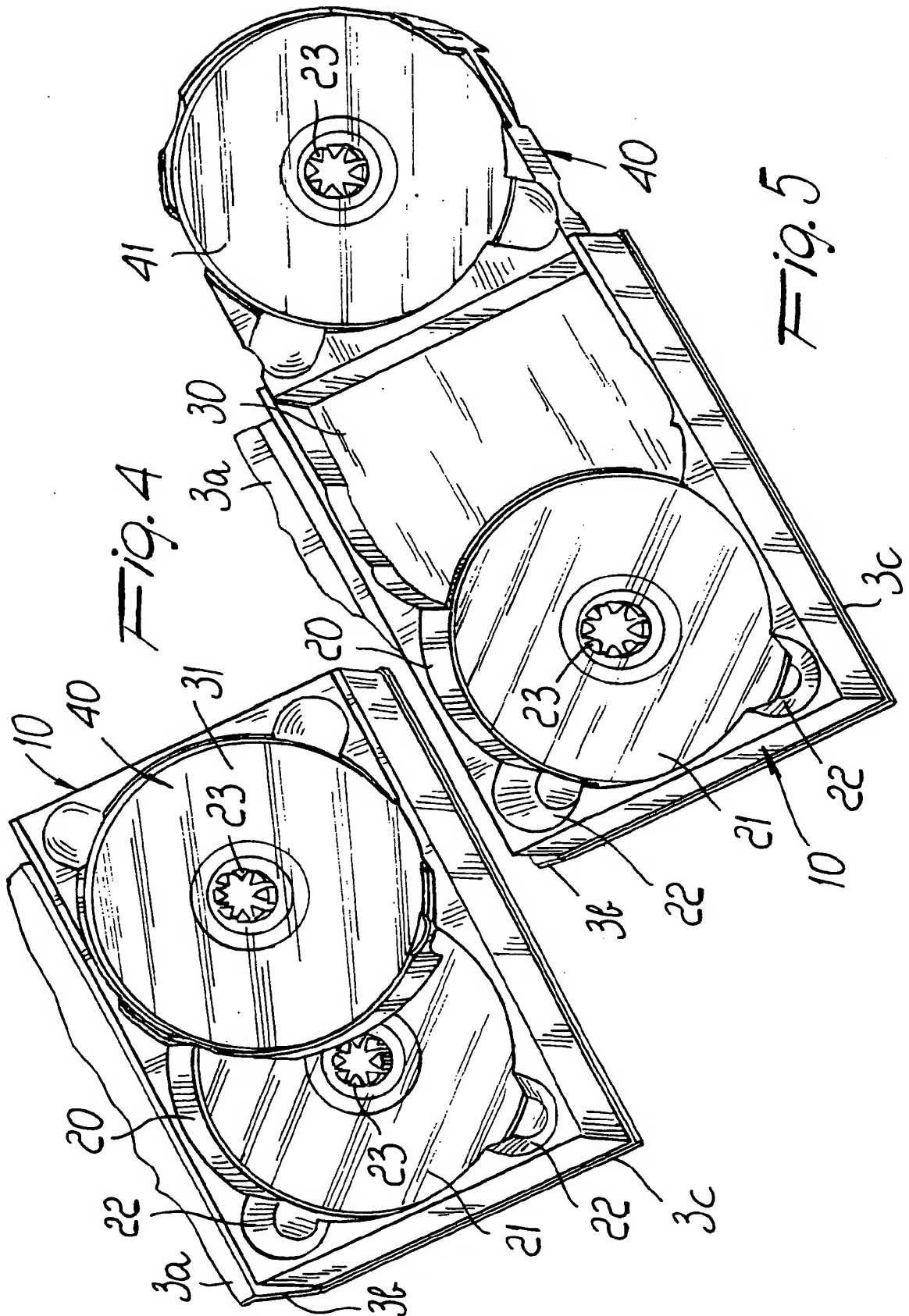
5. Container according to one or more of the preceding claims, characterized in that in said second region (30) there is a swing-out frame (40) supporting a second disc (31) on one face and a third disc (41) on the other face. 25

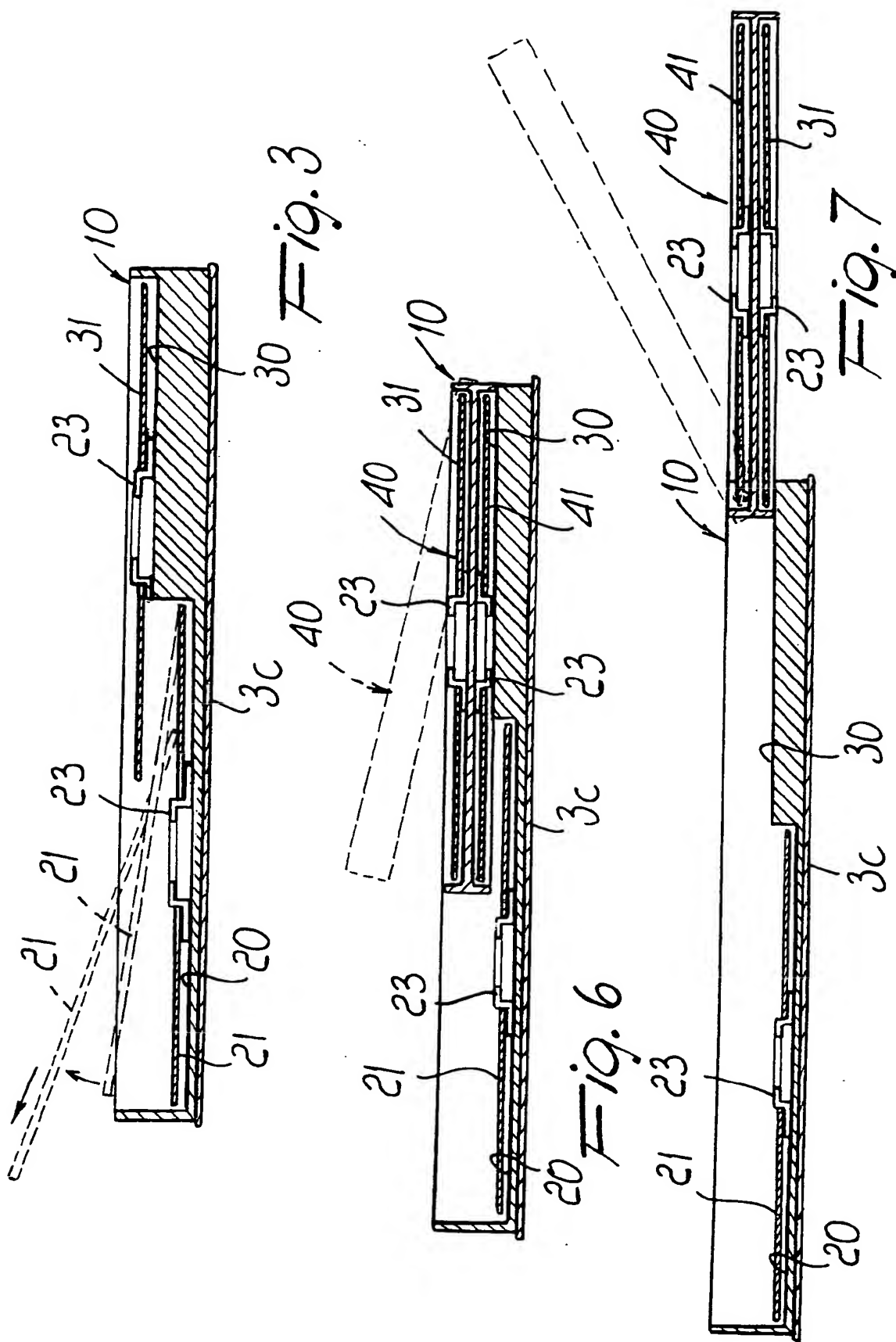
6. Container for a plurality of discs, particularly compact discs, according to one or more of the preceding claims, which comprises a tray-like body (110) having, on its bottom, a first flat surface (111) and a second flat surface (112) arranged side by side and at different levels, characterized in that it comprises a first swing-out frame (120), pivoted to said tray and accommodatable at said first flat surface, and a second swing-out frame (130), pivoted to said tray and partially accommodatable on said second flat surface so that the remaining part overlaps, and is spaced from, said first frame (120) accommodated on said first flat surface (111), each one of said frames supporting two discs (121,122,131,132) on opposite faces. 30
35
40

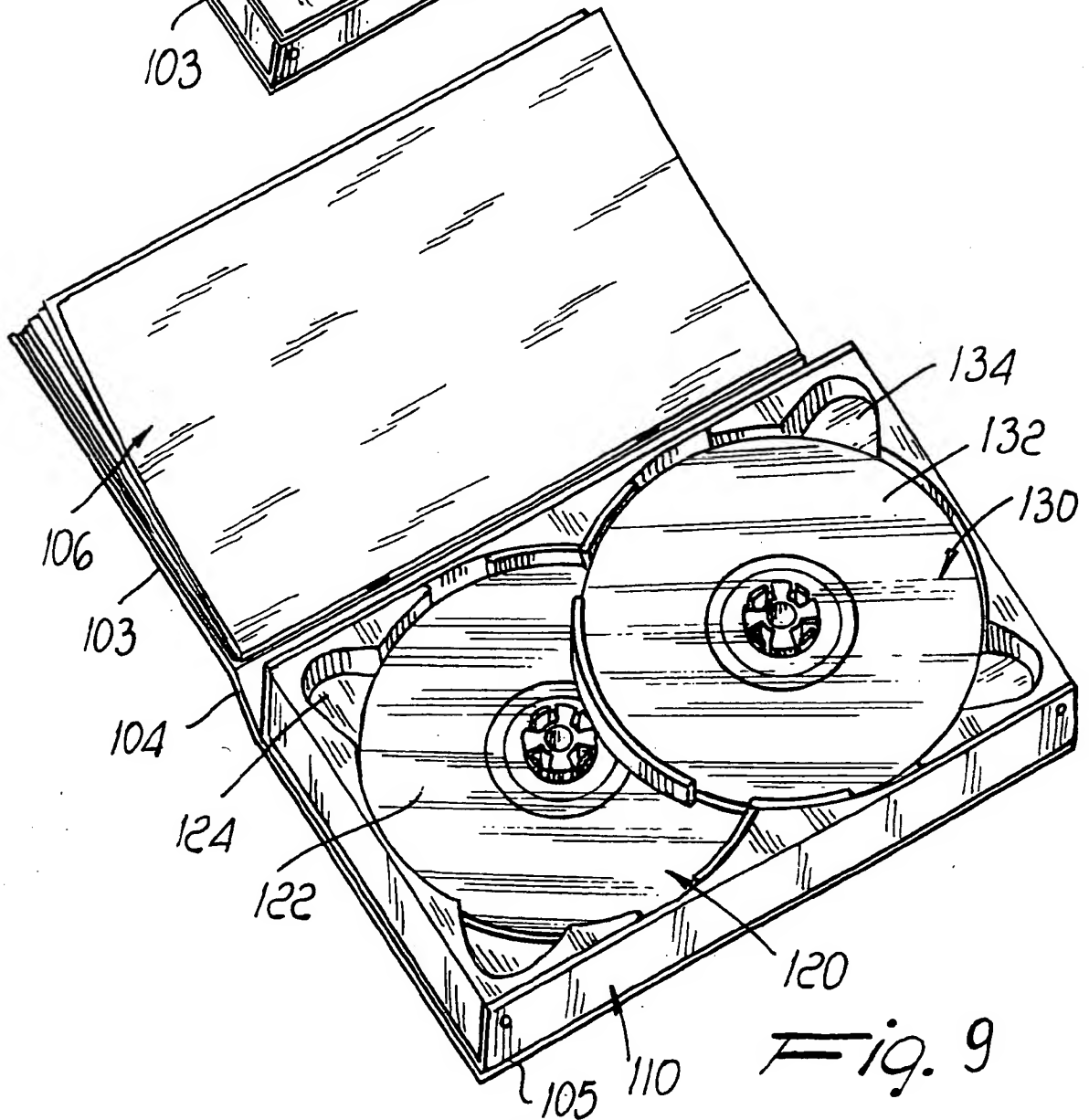
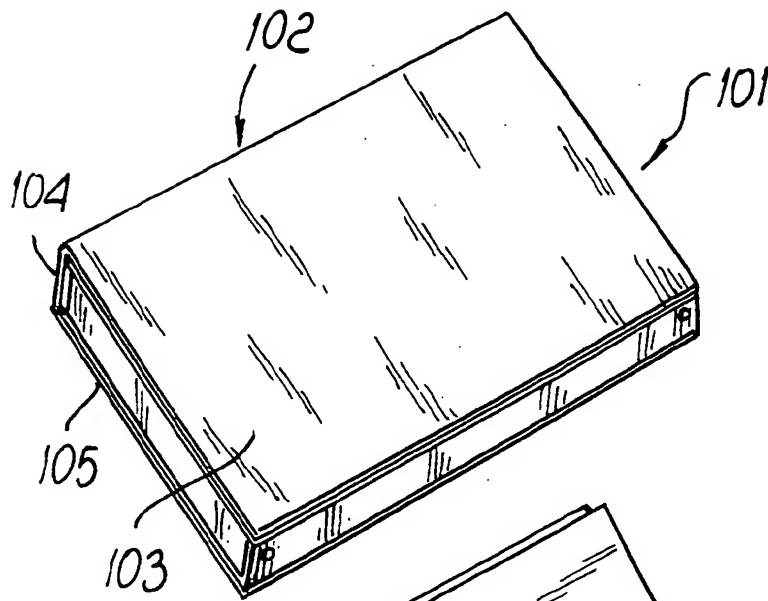
7. Container according to the preceding claims, characterized in that said first (120) and second frames (130) are pivoted at opposite ends of said tray (110). 45

8. Container according to the preceding claims, characterized in that said second flat surface (130) has semicircular recesses (140) located at the peripheral region of said first flat surface (111) in order to allow to grip said first frame (120). 50
55









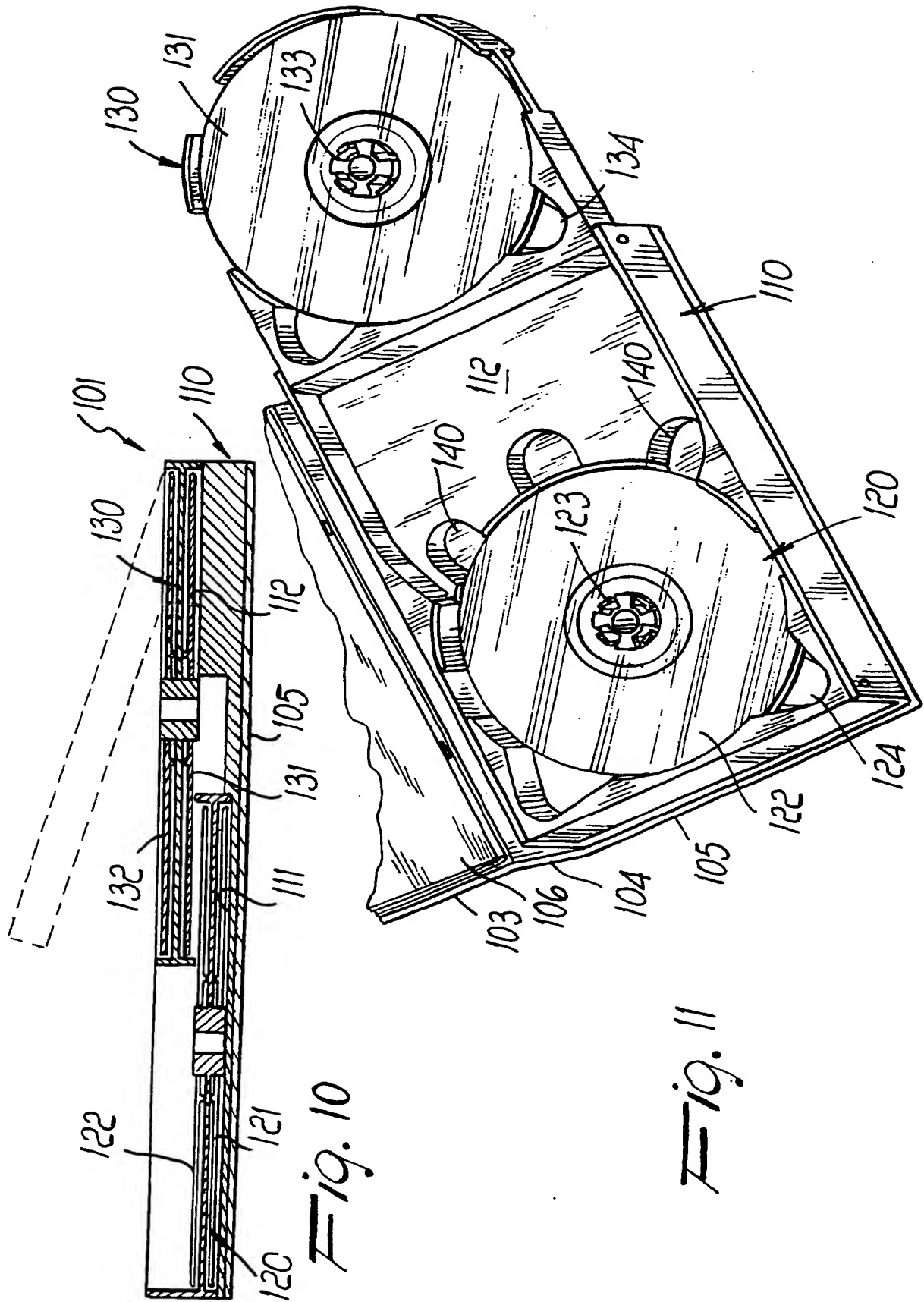
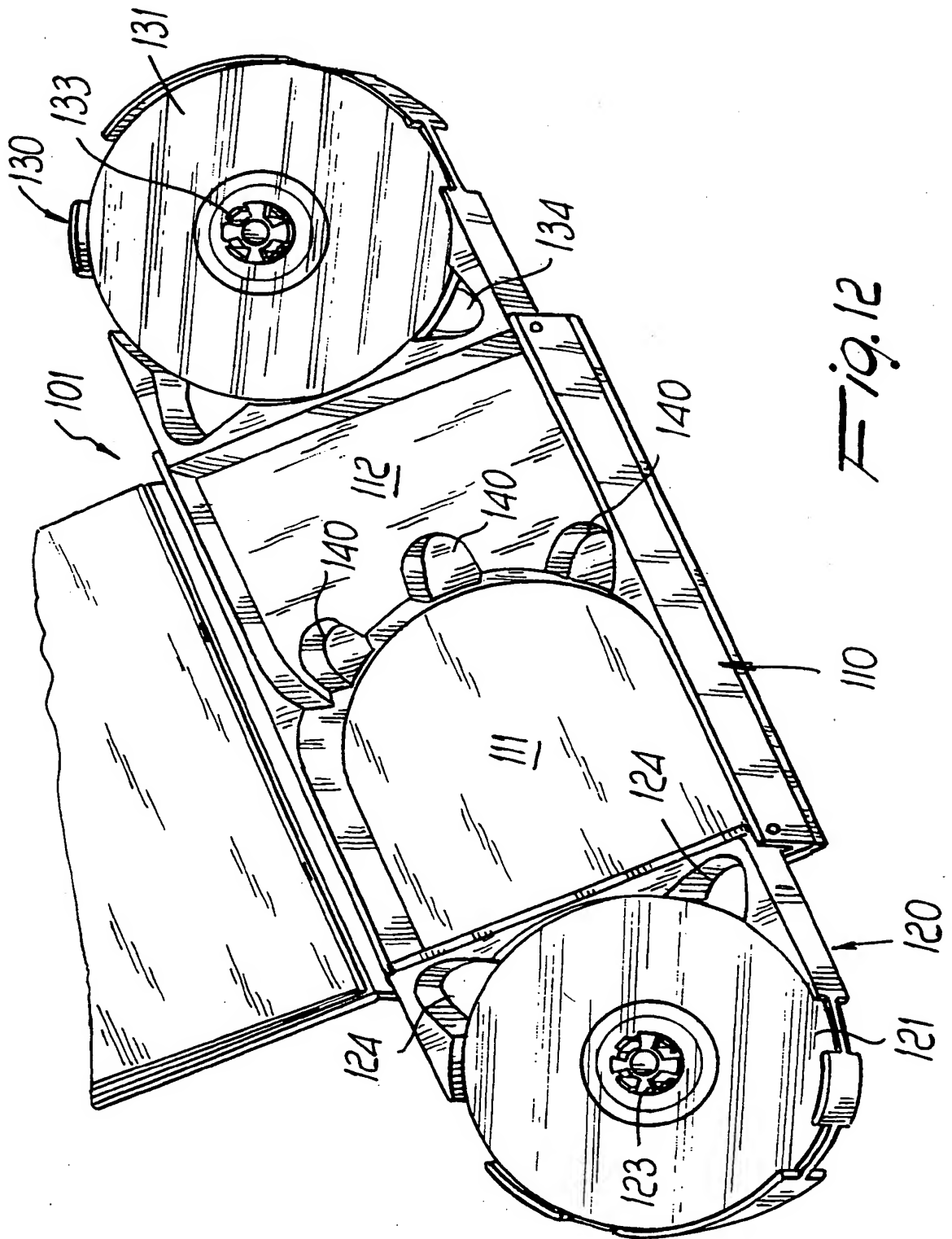


Fig. 10

Fig. 11





⑪ Publication number : **0 676 763 A3**

⑫ **EUROPEAN PATENT APPLICATION**

⑲ Application number : **95110413.2**

⑤① Int. Cl.⁶ : **G11B 33/04**

⑲ Date of filing : **04.07.95**

③① Priority : **15.07.94 IT MI941490**
19.01.95 IT MI950025 U

④③ Date of publication of application :
11.10.95 Bulletin 95/41

④④ Designated Contracting States :
AT BE CH DE DK ES FR GB GR IE IT LI NL SE

④⑧ Date of deferred publication of search report :
29.11.95 Bulletin 95/48

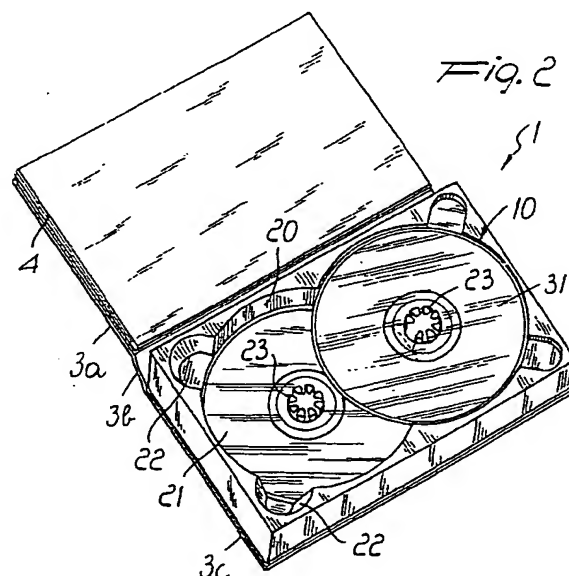
⑦① Applicant : **GRAFICA POZZOLI S.p.A.**
Via G. di Vittorio, 11
I-20065 Inzago (Prov. of Milan) (IT)

⑦② Inventor : **Pozzoli, Aldo**
Via Marchesi, 20
I-20065 Inzago, Milan (IT)

⑦④ Representative : **Modiano, Guido, Dr.-Ing.**
Modiano & Associati S.r.l.
Via Meravigli, 16
I-20123 Milano (IT)

⑤④ Container for a plurality of discs, particularly compact discs.

⑤⑦ The present invention relates to a container for a plurality of discs, particularly compact discs, which comprises a tray-like body having, on its bottom, a first flat surface and a second flat surface arranged side by side and at different levels. The container comprises a first swing-out frame, pivoted to the tray and accommodatable at the first flat surface, and a second swing-out frame, pivoted to the tray and partially accommodatable on the second flat surface so that the remaining part overlaps, and is spaced from, the first frame accommodated on the first flat surface. Each frame supports two discs on opposite faces.



EP 0 676 763 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 95 11 0413

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	WO-A-92 15505 (CORNELIUSSEN MARTIN ;CHRISTIANSEN MADs (DK)) 17 September 1992 * page 5, line 24 - page 7, line 23; figures *	1-4	G11B33/04
Y	---	5-8	
A	US-A-5 322 162 (MELK THOMAS J) 21 June 1994 * column 3, line 35 - column 5, line 14; figures *	1	
Y	---	5-8	
A	DE-U-86 25 285 (M.JANSKY) 29 January 1987 * claims 1-6; figures *	1,2	
A	DE-U-87 02 353 (HAVANT ASSOCIATES) 25 June 1987 * claims 1,2; figures *	1,2,4	
A	EP-A-0 114 631 (POLYGRAM GMBH) 1 August 1984 -----		<div>TECHNICAL FIELDS SEARCHED (Int.Cl.6)</div> <div>G11B</div>
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27 September 1995	Examiner Declat, M
<div>CATEGORY OF CITED DOCUMENTS</div> <div> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document </div> <div> T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document </div>			

EPO FORM 1503 (01.92) (P0604)